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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,485	04/12/2001	Shivi Fotedar	3981-11	3564
20575	7590	09/20/2004	EXAMINER	
MARGER JOHNSON & MCCOLLOM PC 1030 SW MORRISON STREET PORTLAND, OR 97205			HO, DUC CHI	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/834,485

Applicant(s)

FOTEDAR ET AL.

Examiner

Duc C Ho

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 16-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 24-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

*Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-15, and 24-33, drawn to connection having a plurality of nodes, classified in class 370, subclass 400.
  - II. Claims 16-23, drawn to a gateway node, classified in class 370, subclass 401.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, each of the invention of the group I, and II can be used in a system for establishing connection in a network that does not necessarily utilize the features of the inventions of the other group. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purpose as indicated is proper.
4. During a telephone conversation with Stephen S. Ford (P:503-222-3613) on September - 14- 2004, a provisional election was made without traverse to prosecute the invention of the group I, claims 1-15, and 24-33.
5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-23 are withdrawn from further consideration by the examiner, 37 FR 1.142(b), as being drawn to a non-elected invention.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-12, 14-15, 24-26, and 28-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Tappan (U.S. 6,473,421).

Regarding claim 1, Tappan discloses a hierarchical label switching across multiple OSPF areas.

*identifying an address for an egress node in the network* (the router S-fig. 6 sends a packet to the router D by identifying the address of an egress domain router E-ASBR-fig. 6 in the network from the I-ASBR ingress domain router, see col. 5-line 62 to col. 6-line 50);

*identifying a next hop in the network for the address* (the E-ASBR-fig. 6 uses OSPF message, fig. 7-row 4 to I-ASBR using LSA (link-state-advertisement) to transmit one or more LSA from one router to a neighbor router, see col. 6-line 51 to col. 7-line 67);

*associating a label value with the address* (the MPLS label-fig. 7 is placed in the external route tag field, see col. 7-line 40 to col. 8-line 55); *and*

*receiving data that includes the label value and then transferring the data to the next hop for the address* (the ingress domain router I-ASBR-fig. 6 inherently receives the data includes

the label value, and transferring the data to a next hop neighbor router, until the data reaches the E-ASBR egress domain router).

Regarding claim 2, the routers in fig. 6 receive the address of the E-ASBR during a network layer flooding using the OSPF protocol, which identifies a router to its neighbor router, see col. 6-line 55 to col. 7-line 67. The data receives from the I-ASBR is transferred to its next hop router during a layer 2 point to point connection.

Regarding claim 3, in Tappan the transferring of data is independently.

Regarding claim 4, the body of the OSPF message- fig. 7 is payload of an IP datagram and forwarding the data to the next hop without using the IP destination address, see col. 6, lines 51-65.

Regarding claims 5-7, the routers in fig. 6 receive the address of the E-ASBR and the label via the OSPF flooding protocol.

Regarding claim 8, after the flooding protocol the OSPF message using the LSA to identify the next hop for the E-ASBR address.

Regarding claims 9, and 15, in Tappan the forwarding table of the label –switching router includes different label value with different egress node address, see col. 3, lines 3-41.

Regarding claim 10, in Tappan the E-ASBR receives the label value via a LSA packet.

Regarding claim 11, in Tappan the E-ASBR provides multiple label values in the LSA packet.

Regarding claim 12, in Tappan the top labels may be contained not only in MPLS headers but additionally, if the label-switching routers are implemented in ATM switches, ATM-cell virtual-channel-indicator fields. Consequently, the label could be configured to include a QOS.

Regarding claim 14, in Tappan the address of the E-ASBR is capable to be expressed in IP address, see col. 1-line 31 to col. 2-line 65. The data is an Ethernet frame-fig. 3, and the label value is the MPLS label.

Regarding claim 24, this claim has similar limitations as claims 1-2. Therefore, it is rejected under Tappan for the same reasons set forth in the rejection of claims 1-2.

Regarding claim 25, in Tappan the table in each intermediate router is able to inform the next hop router using the label assigned to the Ethernet frame, see col. 2, lines 36-49.

Regarding claim 26, in Tappan the ingress node is capable to be configured as a part of an Internet Service Provider network, see col. 2, lines 12-49.

Regarding claim 28, in Tappan the label is a MPLS label.

Regarding claim 29, please see the rejection of claims 1-2 for layer 3 flooding protocol.

Regarding claim 30, the E-ASBR sends a LSA to the intermediate nodes that contains the E-ASBR address and the label associated with the address, see col. 6-line 40 to col. 7-line 39.

Regarding claim 31, in Tappan the top labels may be contained not only in MPLS headers but additionally, if the label-switching routers are implemented in ATM switches, ATM-cell virtual-channel-indicator fields. Consequently, the label could be configured to include a QOS.

Regarding claim 32, the intermediate nodes between the I-ASBR-fig. 6 and E-ASBR having the same label value to the Ethernet frame over the interconnections.

Regarding claim 33, the intermediate nodes-fig. 6 is capable of forwarding the frames according to the label value independently of ingress input ports on the intermediate nodes receiving the Ethernet frames.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 13, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tappan, in view of Hurren et al.( US 6,788, 681), hereinafter referred to as Hurren.

Regarding claim 13, Tappan discloses all claimed invention, except the label value is a VLAN Id value.

Hurren discloses virtual private networks and method for their operation. In Hurren a protocol that enables Ethernet LAN to be partitioned in multiple virtual LAN (VLANs) through the use of a VLAN tag carried in the header of each frame of data, see col. 1-line 64 to col. 2-line 10.

One skill in the art would recognize the advantage of using the label value being a VLAN Id for replacing the MPLS label so that a network is more compatible with another protocol such that to provide virtual LAN services to groups of customers.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ the teaching of having the label value being a VLAN Id value for replacing the MPLS label of the Tappan system such that the combination system will be more compatible with another protocol to provide virtual LAN services to groups of customers.

### *Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mike et al. (US 6,771,662); Munoz et al. (US 6,741,585) are cited to show method and apparatus for providing virtual point to point connections in a network, which is considered pertinent to the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read "Duc Ho", with a stylized flourish extending from the end.

Duc Ho

09-15-04